WEST Search History

DATE: Monday, August 05, 2002

Set Name side by side	Query	Hit Count	Set Name result set
DB=USPT,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=OR			
L8	L6 and pluronic$	54	L8
L7	L6 and photosensitizer$	1	L7
L6	L5 and (lactose or trehalose)	83	L6
L5	micelle$ same (freeze$ or lyophiliz$)	223	L5
L4	L3 and (lactose or trehalose)	7	L4
L3	L2 and micelle$	14	L3
L2	benzoporphyrin$	241	L2
L1	micelle$ same benzoporphyrin$	0	L1

END OF SEARCH HISTORY

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L4: Entry 2 of 7 File: USPT

DOCUMENT-IDENTIFIER: US 6375930 B2
TITLE: Membrane incorporation of texaphyrins

Brief Summary Text (21):
Developing strategies, such as PDT, have sought more selective closure of the blood vessels to preserve the overlying neurosensory retina PDT of conditions in the eye characterized by neovascularization has been attempted using the conventional porphyrin derivatives such as hematoporphyrin derivative and PHOTOFRIN.RTM. porfimer sodium. Problems have been encountered in this context due to interference from eye pigments. In addition, phthalocyanine and benzoporphyrin derivatives have been used in photodynamic treatment. PCT publication WO 95 24930 and Miller et al., (Archives of Ophthalmology, June, 1995) relate to treatment of eye conditions characterized by unwanted neovasculature comprising administering a green porphyrin to the neovasculature and irradiating the neovasculature with light having a wavelength of 550-695 nm. U.S. Pat. No. 5,166,197 relates to phthalocyanine derivatives reportedly useful for macular degeneration. Asrani and Zeimer (British Journal of Ophthalmology, 1995, 79:766-770) relate to photoocclusion of ocular vessels using a phthalocyanine encapsulated in heat-sensitive liposomes. Levy (Semin. Oncol. 1994, 21/6, suppl. 15 (4-10)) relates to photodynamic therapy and macular degeneration with porfimer sodium (PHOTOFRIN.RTM., requiring light of 630 nm and causing cutaneous photosensitivity that may last for up to 6 weeks), and benzoporphyrin derivative (BPD verteporfin, causing cutaneous photosensitivity of a few days). Lin et al. relate to the photodynamic occlusion of choroidal vessels using benzoporphyrin derivative BPD-MA. Further, BPD and tin purpurin (SnET2) are insoluble in aqueous solutions and require hydrophobic vehicles for administration.

Brief Summary Text (28):
A texaphyrin-lipophilic molecule-biological vesicle complex is an embodiment of the present invention. By "biological vesicle" is meant a membranous structure having a lipid bilayer, or a micelle. By "lipid bilayer" is meant a bimolecular sheet of phospholipids and/or glycolipids. A biological vesicle may be a cell, such as a red cell or white cell, or membranous fragment thereof; a liposomal membrane; a nonphospholipid vesicle, or a colloidal drug delivery system. In one embodiment of the present invention, the biological vesicle is a resealed red blood cell.

Brief Summary Text (51):
A method of making a texaphyrin-lipophilic molecule-liposome complex is an aspect of the present invention. The method comprises the step of incubating a texaphyrin-lipophilic molecule conjugate with a lipid or incorporating a texaphyrin-lipophilic molecule into a preformed liposome or micelle for a time and under conditions wherein a texaphyrin-lipophilic molecule-liposome complex is formed. An optional step is to include a drug or therapeutic agent during the incubation or incorporation.

Brief Summary Text (61):
Micelles may be prepared by suspension of a texaphyrin-lipophilic molecule and lipid compound(s) in an organic solvent, evaporation of the solvent, resuspension in an aqueous medium, sonication and then centrifugation. Alternatively, the texaphyrin-lipophilic molecule may be added to preformed micelles, which micelles are made by methods known by one of skill in the art in light of the present disclosure.

Brief Summary Text (62):

Techniques and lipids for preparing liposomes and micelles are discussed in U.S. Pat. No. 5,466,438, and references cited therein. The disclosures of each of the foregoing references are incorporated herein by reference.

Brief Summary Text (87):
The term "saccharide" includes oxidized, reduced or substituted saccharide; hexoses such as D-glucose, D-mannose or D-galactose; pentoses such as D-ribose or D-arabinose; ketoses such as D-ribulose or D-fructose; disaccharides such as sucrose, lactose, or maltose; derivatives such as acetals, amines, and phosphorylated sugrs; oligosaccharides, as well as open chain forms of various sugars, and the like. Examples of amine-derivatized sugars are galactosamine, glucosamine, sialic acid and D-glucarine derivatives such as 1-amino-1-deoxysorbitol.

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L4: Entry 2 of 7 File: USPT Apr 23, 2002

US-PAT-NO: 6375930
DOCUMENT-IDENTIFIER: US 6375930 B2

TITLE: Membrane incorporation of texaphyrins

DATE-ISSUED: April 23, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Young; Stuart W.	Portola	CA		
Wright; Meredith	San Jose	CA		
Sessler; Jonathan L.	Austin	TX		
Mody; Tarak D.	Sunnyvale	CA		
Magda; Darren	Cupertino	CA		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Board of Regents, The University of Texas System	Austin	TX			02
Pharmacyclics, Inc.	Sunnyvale	CA			02

APPL-NO: 08/ 975090 [PALM]
DATE FILED: November 20, 1997

PARENT-CASE:
This application is a continuation application of copending international application PCT/US97/09501 filed Jun. 4, 1997, which claims priority to converted provisional application No. 60/056,917, (formerly U.S. Ser. No. 08/657,947), filed Jun. 4, 1996, now abandoned. The patent applications are incorporated by reference herein.

INT-CL: [07] A61 B 55/055

US-CL-ISSUED: 424/9.362; 424/1.11, 424/1.65, 424/9.1, 424/9.3, 424/450, 546/11, 544/1, 540/1, 540/145
US-CL-CURRENT: 424/9.362; 424/1.11, 424/1.65, 424/450, 424/9.1, 424/9.3, 540/1, 540/145, 544/1, 546/11

FIELD-OF-SEARCH: 424/1.11, 424/1.65, 424/9.1, 424/9.3, 424/9.362, 424/9.4, 424/9.5, 424/9.6, 424/9.7, 424/9.8, 424/450, 540/1, 540/121, 540/145, 544/1, 544/224, 546/1, 546/152, 546/184, 546/249, 548/100, 548/300.1

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected Search ALL

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
☐	4193983	March 1980	Ullman et al.	424/1.11
☐	4478824	October 1984	Franco et al.	
☐	4931276	June 1990	Franco et al.	
☐	4935498	June 1990	Sessler et al.	534/15
☐	5000960	March 1991	Wallach	424/450
☐	5252720	October 1993	Sessler et al.	534/11
☐	5257970	November 1993	Dougherty	
☐	5258453	November 1993	Kopecek et al.	
☐	5328678	July 1994	Fugii et al.	
☐	5445608	August 1995	Chen et al.	
☐	5457183	October 1995	Sessler et al.	
☐	5466438	November 1995	Unger et al.	
☐	5559207	September 1996	Sessler et al.	530/300
☐	5565552	October 1996	Magda et al.	534/11
☐	5567687	October 1996	Magda et al.	514/44
☐	5587463	December 1996	Sessler et al.	534/15
☐	5591422	January 1997	Hemmi et al.	424/9.362
☐	5594136	January 1997	Sessler et al.	540/472
☐	5595726	January 1997	Magda et al.	424/9.61
☐	5599923	February 1997	Sessler et al.	540/145
☐	5599928	February 1997	Hemmi et al.	540/474
☐	5607924	March 1997	Magda et al.	514/44
☐	5622946	April 1997	Sessler et al.	514/185
☐	6072038	June 2000	Sessler et al.	530/391.7

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
0 616 801	September 1994	EP	
WO 90/10633	September 1990	WO	
WO 92/05109	April 1992	WO	
94/29316	December 1994	WO	
WO95/10307	April 1995	WO	
95/21845	August 1995	WO	
96/09315	March 1996	WO	
WO 96/32094	October 1996	WO	
WO97/46262	December 1997	WO	

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Pharmacyclics Press Release, "Pharmacyclics Announce NCI Decision Network Approval to Collaborate on Two Anti-Cancer Compounds," Sunnyvale, California, Mar. 11, 1997.
Pharmacyclics Press Release, "Pharmacyclics Presents Results and Updates Status for Photodynamic Therapy Agent at ASCO Meeting," Sunnyvale, California, May 19, 1997.
Pharmacyclics Press Release, "Pharmacyclics Announces Interim Results of GD-Tex," Sunnyvale, California, May 20, 1997.
Pharmacyclics Press Release, "NCI to Sponsor 9 Clinical Studies With Pharmacyclics' GD-Tex", Sunnyvale, California, Sep. 16, 1997.
Pharmacyclics Press Release, "Pharmacyclics Completes Dose Esclation Portion of Phase Ib/II Clinical Trial With Radiation Sensitizer", Sunnyvale, California, Sep. 30, 1997.
Pharmacyclics Press Release, "Pharmacyclics Presents Interim Safety and Efficacy Data of Radiation Sensitizer at American Society for Therapeutic Radiology and Oncology Meeting" Sunnyvale, California, Oct. 20, 1997.
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Young, et al., "Preclinical Evaluation of Gadolinium (III) Texaphyrin Complex-A New Paramagnetic Contrast Agent for Magnetic Resonance Imaging", Investigative Radiology, 29(3):330-338, 1994.
Young, et al., "Lutetium Texaphyrin (PCI-0123): A Near-Infrared, Water-Soluble Photosensitizer," Photochemistry and Photobiology, 63(6):892-897, 1996.
Sessler et al., "Texaphyrin", one-page, date unknown.

ART-UNIT: 1619

PRIMARY-EXAMINER: Jones; Dameron L.

ABSTRACT:

Compositions having a texaphyrin-lipophilic molecule conjugate loaded into a biological vesicle and methods for imaging, diagnosis and treatment using the loaded vesicle are provided. For example, liposomes or red blood cells loaded with a paramagnetic texaphyrin-lipophilic molecule conjugate have utility as a blood pool contrast agent, facilitating the enhancement of normal tissues, magnetic resonance angiography, and marking areas of damaged endothelium by their egress through

fenestrations or damaged portions of the blood vascular system. Liposomes or cells loaded with a photosensitive texaphyrin-lipophilic molecule conjugate can be photolysed, allowing for a photodynamic therapy effect at the site of lysis. Availability of red blood cells loaded with a photosensitive texaphyrin-lipophilic molecule conjugate provides a method for delivering a photodynamic therapeutic agent to a desired site with a high concentration of oxygen. By presenting the agent in this way, it is expected that a patient will experience less toxicity.

19 Claims, 0 Drawing figures

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Search Results - Record(s) 1 through 7 of 7 returned.

☐ 1. Document ID: US 6407135 B1

L4: Entry 1 of 7 File: USPT

US-PAT-NO: 6407135
DOCUMENT-IDENTIFIER: US 6407135 B1

TITLE: Conjugates of dithiocarbamates with pharmacologically active agents and uses therefor

DATE-ISSUED: June 18, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lai; Ching-San	Encinitas	CA		
Wang; Tingmin	San Marcos	CA		

US-CL-CURRENT: 514/423; 514/2, 514/514, 530/402, 548/565, 548/573

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

☐ 2. Document ID: US 6375930 B2

L4: Entry 2 of 7 File: USPT

US-PAT-NO: 6375930
DOCUMENT-IDENTIFIER: US 6375930 B2

TITLE: Membrane incorporation of texaphyrins

DATE-ISSUED: April 23, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Young; Stuart W.	Portola	CA		
Wright; Meredith	San Jose	CA		
Sessler; Jonathan L.	Austin	TX		
Mody; Tarak D.	Sunnyvale	CA		
Magda; Darren	Cupertino	CA		

US-CL-CURRENT: 424/9.362; 424/1.11, 424/1.65, 424/450, 424/9.1, 424/9.3, 540/1, 540/145, 544/1, 546/11

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

☐ 3. Document ID: US 6316502 B1

L4: Entry 3 of 7 File: USPT

US-PAT-NO: 6316502
DOCUMENT-IDENTIFIER: US 6316502 B1

TITLE: Therapeutic methods employing disulfide derivatives of dithiocarbonates and compositions useful therefor

DATE-ISSUED: November 13, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lai; Ching-San	Encinitas	CA		
Vassilev; Vassil	San Diego	CA		

US-CL-CURRENT: 514/599; 514/707, 514/825, 514/838, 514/851, 514/861, 514/866, 514/885, 514/903, 514/912, 514/925

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

☐ 4. Document ID: US 6274627 B1

L4: Entry 4 of 7 File: USPT

US-PAT-NO: 6274627
DOCUMENT-IDENTIFIER: US 6274627 B1

TITLE: Conjugates of dithiocarbamate disulfides with pharmacologically active agents and uses therefor

DATE-ISSUED: August 14, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lai; Ching-San	Encinitas	CA		
Vassilev; Vassil P.	San Diego	CA		
Wang; Tingmin	San Marcos	CA		

US-CL-CURRENT: 514/599; 514/706, 514/707

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

☐ 5. Document ID: US 6123923 A

L4: Entry 5 of 7 File: USPT

US-PAT-NO: 6123923
DOCUMENT-IDENTIFIER: US 6123923 A

TITLE: Optoacoustic contrast agents and methods for their use

DATE-ISSUED: September 26, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Unger; Evan C.	Tucson	AZ		
Wu; Yunqiu	Tucson	AZ		

US-CL-CURRENT: 424/9.52; 424/450, 424/9.1, 424/9.2, 424/9.3, 424/9.6, 514/410

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC
Draw Desc | Image

☐ 6. Document ID: US 6093743 A

L4: Entry 6 of 7 File: USPT

US-PAT-NO: 6093743
DOCUMENT-IDENTIFIER: US 6093743 A

TITLE: Therapeutic methods employing disulfide derivatives of dithiocarbamates and compositions useful therefor

DATE-ISSUED: July 25, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lai; Ching-San	Encinitas	CA		
Vassilev; Vassil	San Diego	CA		

US-CL-CURRENT: 514/599; 514/706, 514/707, 514/851, 514/861, 514/863, 514/866, 514/909, 514/912

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC
Draw Desc | Image

☐ 7. Document ID: US 5916910 A

L4: Entry 7 of 7 File: USPT

US-PAT-NO: 5916910
DOCUMENT-IDENTIFIER: US 5916910 A

TITLE: Conjugates of dithiocarbamates with pharmacologically active agents and uses therefore

DATE-ISSUED: June 29, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lai; Ching-San	Encinitas	CA		

US-CL-CURRENT: 514/423; 514/514, 548/564, 548/573, 558/235

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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Terms	Documents
L3 and (lactose or trehalose)	7

Display Format: - Change Format

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L3: Entry 13 of 14 File: USPT

DOCUMENT-IDENTIFIER: US 5885557 A
TITLE: Compositions useful in the phototherapeutic treatment of proliferative skin disorders

Brief Summary Text (51):
Additionally, a photosensitizing agent such as psoralen or a psoralen-based compound may be administered to a patient and used in combination with a topically-applied sunscreen. The compounds may be administered in one of the traditional modes (e.g., orally, parenterally, transdermally or transmucosally), in a sustained-release formulation using a biodegradable, biocompatible polymer, or by on-site delivery using micelles, gels and liposomes. Once administered, a sufficient time period is allowed to pass in order for the compound to be selectively retained in affected skin regions. Preferably, the compound is administered so that the ratio of drug retained in the affected and non-affected regions is maximized at approximately the same time that the ratio of the amount of sunscreen covering these regions is minimized. This allows for efficient treatment of the affected regions of skin using PDT.

Brief Summary Text (52):
Examples of photosensitizing agents which can be used in the method of the present invention include hematoporphyrin derivative (HPD), porfimer sodium (Photofrin), benzoporphyrin-derivative monoacid ring A (BPD-MA), mono-1-aspartyl chlorin e6 (NPe6), chloroaluminum sulfonated phthalocyanine and similar light-absorbing compounds which are selectively retained in affected skin regions and become activated (i.e., undergo photochemical reactions to produce cytotoxic singlet oxygen) following optical absorption. In addition, 5-aminolevulinic acid (ALA), a naturally-occurring precursor to the biosynthesized porphyrin Protoporphyrin IX, may be used as a photosensitizing agent. Examples of psoralen-based compounds which can be used in the method of the present invention include 8-MOP (methoxsalen, xanthotoxin), 5-methoxypsoralen (5-MOP, bergaptin), 7-methylpyridopsoralen, isopsoralen, and other isomeric and chemical derivative forms of psoralen.

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☐ 1. Document ID: US 6407135 B1

L3: Entry 1 of 14 File: USPT

US-PAT-NO: 6407135
DOCUMENT-IDENTIFIER: US 6407135 B1

TITLE: Conjugates of dithiocarbamates with pharmacologically active agents and uses therefor

DATE-ISSUED: June 18, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lai; Ching-San	Encinitas	CA		
Wang; Tingmin	San Marcos	CA		

US-CL-CURRENT: 514/423; 514/2, 514/514, 530/402, 548/565, 548/573

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC
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☐ 2. Document ID: US 6375930 B2

L3: Entry 2 of 14 File: USPT

US-PAT-NO: 6375930
DOCUMENT-IDENTIFIER: US 6375930 B2

TITLE: Membrane incorporation of texaphyrins

DATE-ISSUED: April 23, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Young; Stuart W.	Portola	CA		
Wright; Meredith	San Jose	CA		
Sessler; Jonathan L.	Austin	TX		
Mody; Tarak D.	Sunnyvale	CA		
Magda; Darren	Cupertino	CA		

US-CL-CURRENT: 424/9.362; 424/1.11, 424/1.65, 424/450, 424/9.1, 424/9.3, 540/1, 540/145, 544/1, 546/11

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC
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☐ 3. Document ID: US 6331235 B1

L3: Entry 3 of 14 File: USPT

US-PAT-NO: 6331235
DOCUMENT-IDENTIFIER: US 6331235 B1

TITLE: Chiral separation of benzoporphyrin derivative mono-and di-acids by laser-induced fluorescence capillary electrophoresis

DATE-ISSUED: December 18, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Dolphin; David	Vancouver			CA
Peng; Xuejun	Vancouver			CA
Sternberg; Ethan D.	Vancouver			CA

US-CL-CURRENT: 204/451

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw. Desc | Image

☐ 4. Document ID: US 6316502 B1

L3: Entry 4 of 14 File: USPT

US-PAT-NO: 6316502
DOCUMENT-IDENTIFIER: US 6316502 B1

TITLE: Therapeutic methods employing disulfide derivatives of dithiocarbonates and compositions useful therefor

DATE-ISSUED: November 13, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lai; Ching-San	Encinitas	CA		
Vassilev; Vassil	San Diego	CA		

US-CL-CURRENT: 514/599; 514/707, 514/825, 514/838, 514/851, 514/861, 514/866, 514/885, 514/903, 514/912, 514/925

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw. Desc | Image

☐ 5. Document ID: US 6274627 B1

L3: Entry 5 of 14 File: USPT

US-PAT-NO: 6274627
DOCUMENT-IDENTIFIER: US 6274627 B1

TITLE: Conjugates of dithiocarbamate disulfides with pharmacologically active agents and uses therefor

DATE-ISSUED: August 14, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lai; Ching-San	Encinitas	CA		
Vassilev; Vassil P.	San Diego	CA		
Wang; Tingmin	San Marcos	CA		

US-CL-CURRENT: 514/599; 514/706, 514/707

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☐ 6. Document ID: US 6258340 B1

L3: Entry 6 of 14 File: USPT

US-PAT-NO: 6258340
DOCUMENT-IDENTIFIER: US 6258340 B1

TITLE: In-vivo diagnostic method by near infrared radiation

DATE-ISSUED: July 10, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Licha; Kai	Berlin			DE
Riefke; Bjorn	Berlin			DE
Semmler; Wolfhard	Glienicke			DE
Speck; Ulrich	Berlin			DE
Hilger; Christoph-Stephan	Berlin			DE

US-CL-CURRENT: 424/9.6; 100/146, 100/215, 424/1.11, 424/1.65, 424/9.1, 546/133, 548/100, 548/120, 548/159, 548/217

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☐ 7. Document ID: US 6159445 A

L3: Entry 7 of 14 File: USPT

US-PAT-NO: 6159445
DOCUMENT-IDENTIFIER: US 6159445 A

TITLE: Light imaging contrast agents

DATE-ISSUED: December 12, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Klaveness; Jo	Oslo			NO
Fuglass; Bjorn	Oslo			NO
Rongved; P.ang.al	Oslo			NO
Johannesen; Edvin	Oslo			NO
Henrichs; Paul Mark	Wayne	PA		
Heinrich; Wolfgang Hans	Wayne	PA		
Bacon; Edward Richard	Wayne	PA		
Toner; John Luke	Wayne	PA		
McIntire; Gregory Lynn	Wayne	PA		
Desai; Vinay C.	Pheonixville	PA		

US-CL-CURRENT: 424/9.6; 424/9.1, 600/314, 600/317, 600/473, 600/476

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC
Draw Desc | Image

☐ 8. Document ID: US 6123923 A

L3: Entry 8 of 14 File: USPT

US-PAT-NO: 6123923
DOCUMENT-IDENTIFIER: US 6123923 A

TITLE: Optoacoustic contrast agents and methods for their use

DATE-ISSUED: September 26, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Unger; Evan C.	Tucson	AZ		
Wu; Yunqiu	Tucson	AZ		

US-CL-CURRENT: 424/9.52; 424/450, 424/9.1, 424/9.2, 424/9.3, 424/9.6, 514/410

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC
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☐ 9. Document ID: US 6099864 A

L3: Entry 9 of 14 File: USPT

US-PAT-NO: 6099864
DOCUMENT-IDENTIFIER: US 6099864 A

TITLE: In situ activation of microcapsules

DATE-ISSUED: August 8, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Morrison; Dennis R.	Kemah	TX		
Mosier; Benjamin	Houston	TX		

US-CL-CURRENT: 424/489; 264/4.1, 264/4.3, 264/4.32, 264/4.33, 424/423, 424/450, 428/402.2, 428/402.21, 514/951

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC
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☐ 10. Document ID: US 6093743 A

L3: Entry 10 of 14 File: USPT

US-PAT-NO: 6093743
DOCUMENT-IDENTIFIER: US 6093743 A

TITLE: Therapeutic methods employing disulfide derivatives of dithiocarbamates and compositions useful therefor

DATE-ISSUED: July 25, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lai; Ching-San	Encinitas	CA		
Vassilev; Vassil	San Diego	CA		

US-CL-CURRENT: 514/599; 514/706, 514/707, 514/851, 514/861, 514/863, 514/866, 514/909, 514/912

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC
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☐ 11. Document ID: US 6083485 A

L3: Entry 11 of 14 File: USPT

US-PAT-NO: 6083485
DOCUMENT-IDENTIFIER: US 6083485 A

TITLE: Near infrared radiation in-vivo diagnostic methods and dyes

DATE-ISSUED: July 4, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Licha; Kai	Berlin			DE
Riefke; Bjorn	Berlin			DE
Semmler; Wolfhard	Glienicke			DE
Speck; Ulrich	Berlin			DE
Hilger; Christoph-Stephan	Berlin			DE

US-CL-CURRENT: 424/9.6; 424/1.11, 424/1.65, 424/9.1, 548/100, 548/146, 548/215,

548/300.1, 548/400

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw. Desc | Image

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☐ 12. Document ID: US 5916910 A

L3: Entry 12 of 14 File: USPT

US-PAT-NO: 5916910
DOCUMENT-IDENTIFIER: US 5916910 A

TITLE: Conjugates of dithiocarbamates with pharmacologically active agents and uses therefore

DATE-ISSUED: June 29, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lai; Ching-San	Encinitas	CA		

US-CL-CURRENT: 514/423; 514/514, 548/564, 548/573, 558/235

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw. Desc | Image

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☐ 13. Document ID: US 5885557 A

L3: Entry 13 of 14 File: USPT

US-PAT-NO: 5885557
DOCUMENT-IDENTIFIER: US 5885557 A

TITLE: Compositions useful in the phototherapeutic treatment of proliferative skin disorders

DATE-ISSUED: March 23, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lentini; Peter J.	Bayside	NY		

US-CL-CURRENT: 424/59; 514/675, 514/863

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw. Desc | Image

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☐ 14. Document ID: US 5556612 A

L3: Entry 14 of 14 File: USPT

US-PAT-NO: 5556612
DOCUMENT-IDENTIFIER: US 5556612 A

TITLE: Methods for phototherapeutic treatment of proliferative skin diseases

DATE-ISSUED: September 17, 1996

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Anderson; R. Rox	Lexington	MA		
Hruza; Luciann	St. Louis	MO		
Kollias; Nikiforos	Belmont	MA		

US-CL-CURRENT: 424/59; 514/863

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw. Desc | Image

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☐ 1. Document ID: US 6123923 A

L7: Entry 1 of 1 File: USPT

US-PAT-NO: 6123923
DOCUMENT-IDENTIFIER: US 6123923 A

TITLE: Optoacoustic contrast agents and methods for their use

DATE-ISSUED: September 26, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Unger; Evan C.	Tucson	AZ		
Wu; Yunqiu	Tucson	AZ		

US-CL-CURRENT: 424/9.52; 424/450, 424/9.1, 424/9.2, 424/9.3, 424/9.6, 514/410

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw. Desc | Image

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Terms	Documents
L6 and photosensitizer$	1

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L8: Entry 35 of 54 File: USPT

DOCUMENT-IDENTIFIER: US 6028066 A
TITLE: Prodrugs comprising fluorinated amphiphiles

Brief Summary Text (75):
where x is an integer of from about 6 to about 12; preferably from about 8 to about 10; more preferably 9; z is an integer of from about 8 to about 20; preferably from about 8 to about 16; more preferably from about 8 to about 12; still more preferably from about 8 to about 10; most preferably about 9; and A is a monosaccharide or a disaccharide. Suitable monosaccharides and disaccharides include, for example, allose, altrose, glucose, dextrose, mannose, glycerose, gulose, idose, galactose, talose, fructose, psicose, sorbose, rhamnose, tagatose, ribose, arabinose, xylose, lyxose, ribulose, xylulose, erythrose, threose, erythrulose, flicose, sucrose, lactose, maltose, isomaltose, trehalose, cellobiose and the like. Preferably, the monosaccharide or disaccharide is glucose, dextrose, fructose, mannose, galactose, glucosamine, galactosamine, maltose, sucrose or lactose. Preferably, the fluorinated amphiphilic moiety of formula (IV) attaches via the sugar moiety "A" to the linking group or bioactive agent. For example, the "--CHO" group on the sugar moiety may be converted to a --COOH group by methods known to one skilled in the art (e.g., reacting the sugar with Br.sub.2 +H.sub.2 O or with HNO.sub.3). Thereafter, the sugar moiety may be attached via the --COOH group to the linking group or bioactive agent.

Brief Summary Text (91):
In addition to residues of hydrophilic polymers, Z in formula (V) can be a saccharide residue. Exemplary saccharides from which Z can be derived include, for example, monosaccharides or sugar alcohols, such as erythrose, threose, ribose, arabinose, xylose, lyxose, fructose, sorbitol, mannitol and sedoheptulose, with preferred monosaccharides being fructose, mannose, xylose, arabinose, mannitol and sorbitol; and disaccharides, such as lactose, sucrose, maltose and cellobiose. Other saccharides include, for example, inositol and ganglioside head groups. Other suitable saccharides, in addition to those exemplified above, will be readily apparent to one skilled in the art based on the present disclosure. Generally, saccharides from which Z is derived include saccharides that can be incorporated in the fluorinated amphiphilic compounds via alkylation or acylation reactions.

Brief Summary Text (177):
In addition to stabilizing materials and/or vesicles formulated from lipids and/or proteins, embodiments of the present invention may also involve stabilizing materials or vesicles formulated from polymers which may be of natural, semi-synthetic (modified natural) or synthetic origin. Polymer denotes a compound comprised of two or more repeating monomeric units, and preferably 10 or more repeating monomeric units. Semi-synthetic polymer (or modified natural polymer) denotes a natural polymer that has been chemically modified in some fashion. Examples of suitable natural polymers include naturally occurring polysaccharides, such as, for example, arabinans, fructans, fucans, galactans, galacturonans, glucans, mannans, xylans (such as, for example, inulin), levan, fucoidan, carrageenan, galatocarolose, pectic acid, pectins, including amylose, pullulan, glycogen, amylopectin, cellulose, dextran, dextrin, dextrose, glucose, polyglucose, polydextrose, pustulan, chitin, agarose, keratin, chondroitin, dermatan, hyaluronic acid, alginic acid, xanthin gum, starch and various other natural homopolymer or heteropolymers, such as those containing one or more of the following aldoses, ketoses, acids or amines: erythrose, threose, ribose, arabinose, xylose, lyxose, allose, altrose, glucose, dextrose, mannose, gulose, idose, galactose, talose, erythrulose, ribulose, xylulose, psicose, fructose,

sorbose, tagatose, mannitol, sorbitol, lactose, sucrose, trehalose, maltose, cellobiose, glycine, serine, threonine, cysteine, tyrosine, asparagine, glutamine, aspartic acid, glutamic acid, lysine, arginine, histidine, glucuronic acid, gluconic acid, glucaric acid, galacturonic acid, mannuronic acid, glucosamine, galactosamine, and neuraminic acid, and naturally occurring derivatives thereof. Accordingly, suitable polymers include, for example, proteins, such as albumin or polylactide-coglycolide polymers, and polyalginates. Exemplary semi-synthetic polymers include carboxymethylcellulose, hydroxymethylcellulose, hydroxypropylmethylcellulose, methylcellulose, and methoxycellulose. Exemplary synthetic polymers suitable for use in the present invention include polyphosphazenes, hydroxyapatite polymers, fluoroapatite polymers, polyethylenes (such as, for example, polyethylene glycol (including, for example, the class of compounds referred to as Pluronics.RTM., commercially available from BASF, Parsippany, N.J.), polyoxyethylene, and polyethylene terephthlate), polypropylenes (such as, for example, polypropylene glycol), polyurethanes (such as, for example, polyvinyl alcohol (PVA), polyvinyl chloride and polyvinylpyrrolidone), polyamides including nylon, polystyrene, polylactic acids, fluorinated hydrocarbon polymers, fluorinated carbon polymers (such as, for example, polytetrafluoroethylene), acrylate, methacrylate, and polymethylmethacrylate, and derivatives thereof. Preferred are synthetic polymers or copolymers prepared from monomers, such as acrylic acid, methacrylic acid, ethyleneimine, crotonic acid, acrylamide, ethyl acrylate, methyl methacrylate, 2-hydroxyethyl methacrylate (HEMA), lactic acid, glycolic acid, .epsilon.-caprolactone, acrolein, cyanoacrylate, bisphenol A, epichlorhydrin, hydroxyalkyl-acrylates, siloxane, dimethylsiloxane, ethylene oxide, ethylene glycol, hydroxyalkyl-methacrylates, N-substituted acrylamides, N-substituted methacrylamides, N-vinyl-2-pyrrolidone, 2,4-pentadiene-1-ol, vinyl acetate, acrylonitrile, styrene, p-amino-styrene, p-amino-benzyl-styrene, sodium styrene sulfonate, sodium 2-sulfoxyethyl-methacrylate, vinyl pyridine, aminoethyl methacrylates, 2-methacryloyloxy-trimethylammonium chloride, and polyvinylidene, as well polyfunctional crosslinking monomers such as N,N'-methylenebisacrylamide, ethylene glycol dimethacrylates, 2,2'-(p-phenylenedioxy)-diethyl dimethacrylate, divinylbenzene, triallylamine and methylenebis-(4-phenylisocyanate), including combinations thereof. Preferable polymers include polyacrylic acid, polyethyleneimine, polymethacrylic acid, polymethylmethacrylate, polysiloxane, polydimethylsiloxane, polylactic acid, poly(.epsilon.-caprolactone), epoxy resin, poly(ethylene oxide), poly(ethylene glycol), and polyamide (nylon) polymers. Preferable copolymers include the following: polyvinylidene-polyacrylonitrile, polyvinylidene-polyacrylonitrile-polymethylmethacrylate, polystyrene-polyacrylonitrile and poly d-1, lactide co-glycolide polymers. A preferred copolymer is polyvinylidene-polyacrylonitrile. Other suitable biocompatible monomers and polymers will be apparent to one skilled in the art in view of the present disclosure.

Brief Summary Text (195):
Polymers useful as stabilizing materials and for preparing the gas and/or gaseous precursor filled vesicles may be of natural, semi-synthetic (modified natural) or synthetic origin. Exemplary natural polymers include naturally occurring polysaccharides, such as, for example, arabinans, fructans, fucans, galactans, galacturonans, glucans, mannans, xylans (such as, for example, inulin), levan, fucoidan, carrageenan, galatocarolose, pectic acid, pectins, including amylose, pullulan, glycogen, amylopectin, cellulose, dextran, dextrin, dextrose, glucose, polyglucose, polydextrose, pustulan, chitin, agarose, keratin, chondroitin, dermatan, hyaluronic acid, alginic acid, xanthin gum, starch and various other natural homopolymer or heteropolymers, such as those containing one or more of the following aldoses, ketoses, acids or amines: erythose, threose, ribose, arabinose, xylose, lyxose, allose, altrose, glucose, dextrose, mannose, gulose, idose, galactose, talose, erythrulose, ribulose, xylulose, psicose, fructose, sorbose, tagatose, mannitol, sorbitol, lactose, sucrose, trehalose, maltose, cellobiose, glycine, serine, threonine, cysteine, tyrosine, asparagine, glutamine, aspartic acid, glutamic acid, lysine, arginine, histidine, glucuronic acid, gluconic acid, glucaric acid, galacturonic acid, mannuronic acid, glucosamine, galactosamine, and neuraminic acid, and naturally occurring derivatives thereof Accordingly, suitable polymers include, for example, proteins, such as albumin, polyalginates, and polylactide-coglycolide polymers. Exemplary semi-synthetic polymers include carboxymethylcellulose, hydroxymethylcellulose, hydroxypropylmethylcellulose, methylcellulose, and

methoxycellulose. Exemplary synthetic polymers include polyphosphazenes, hydroxyapatites, fluoroapatite polymers, polyethylenes (such as, for example, polyethylene glycol (including for example, the class of compounds referred to as Pluronics.RTM., commercially available from BASF, Parsippany, N.J.), polyoxyethylene, and polyethylene terephthlate), polypropylenes (such as, for example, polypropylene glycol), polyurethanes (such as, for example, polyvinyl alcohol (PVA), polyvinyl chloride and polyvinylpyrrolidone), polyamides including nylon, polystyrene, polylactic acids, fluorinated hydrocarbon polymers, fluorinated carbon polymers (such as, for example, polytetrafluoroethylene), acrylate, methacrylate, and polymethylmethacrylate, and derivatives thereof. Methods for the preparation of vesicles which employ polymers as stabilizing compounds will be readily apparent to one skilled in the art, in view of the present disclosure, when coupled with information known in the art, such as that described and referred to in Unger, U.S. Pat. No. 5,205,290, the disclosure of which is hereby incorporated by reference herein in its entirety.

Brief Summary Text (200):
The gas and/or gaseous precursor filled vesicles used in the present invention may be controlled according to size, solubility and heat stability by choosing from among the various additional or auxiliary stabilizing materials described herein. These materials can affect the parameters of the vesicles, especially vesicles formulated from lipids, not only by their physical interaction with the membranes, but also by their ability to modify the viscosity and surface tension of the surface of the gas and/or gaseous precursor filled vesicle. Accordingly, the gas and/or gaseous precursor filled vesicles used in the present invention may be favorably modified and further stabilized, for example, by the addition of one or more of a wide variety of (i) viscosity modifiers, including, for example, carbohydrates and their phosphorylated and sulfonated derivatives; polyethers, preferably with molecular weight ranges between 400 and 100,000; and di- and trihydroxy alkanes and their polymers, preferably with molecular weight ranges between 200 and 50,000; (ii) emulsifying and/or solubilizing agents including, for example, acacia, cholesterol, diethanolamine, glyceryl monostearate, lanolin alcohols, lecithin, mono- and di-glycerides, mono-ethanolarnine, oleic acid, oleyl alcohol, poloxamer, for example, poloxamer 188, poloxamer 184, and poloxamer 181, Pluronics.RTM. (BASF, Parsippany, N.J.), polyoxyethylene 50 stearate, polyoxyl 35 castor oil, polyoxyl 10 oleyl ether, polyoxyl 20 cetostearyl ether, polyoxyl 40 stearate, polysorbate 20, polysorbate 40, polysorbate 60, polysorbate 80, propylene glycol diacetate, propylene glycol monostearate, sodium lauryl sulfate, sodium stearate, sorbitan monolaurate, sorbitan monooleate, sorbitan monopalmitate, sorbitan monostearate, stearic acid, trolamine, and emulsifying wax; (iii) suspending and/or viscosity-increasing agents, including, for example, acacia, agar, alginic acid, aluminum monostearate, bentonite, magma, carbomer 934P, carboxymethylcellulose, calcium and sodium and sodium 12, carrageenan, cellulose, dextran, gelatin, guar gum, locust bean gum, veegum, hydroxyethyl cellulose, hydroxypropyl methylcellulose, magnesium-aluminum-silicate, Zeolites.RTM., methylcellulose, pectin, polyethylene oxide, povidone, propylene glycol alginate, silicon dioxide, sodium alginate, tragacanth, xanthin gum, .alpha.-d-gluconolactone, glycerol and mannitol; (iv) synthetic suspending agents, such as polyethylene glycol (PEG), polyvinylpyrrolidone (PVP), polyvinylalcohol (PVA), polypropylene glycol (PPG), and polysorbate; and (v) tonicity raising agents which stabilize and add tonicity, including, for example, sorbitol, mannitol, trehalose, sucrose, propylene glycol and glycerol.

Brief Summary Text (271):
In the case of targeting ligands which comprise saccharide groups, suitable saccharide moieties include, for example, monosaccharides, disaccharides and polysaccharides. Exemplary monosaccharides may have six carbon atoms and these saccharides include allose, altrose, glucose, dextrose, mannose, gulose, idose, galactose, talose, fructose, psicose, verbose and tagatose. Five carbon saccharides include ribose, arabinose, xylose, lyxose, ribulose and xylulose. Four carbon saccharides include erythrose, threose and erythrulose. Disaccharides include sucrose, lactose, maltose, isomaltose and cellobiose. Saccharide bearing targeting lipids may be synthesized through a multistep organic synthesis approach, as described more fully hereinafter. For example, lipids bearing targeting glucose moieties may be prepared by reacting, for example, .alpha.-glucopyranosyl bromide tetrabenzyl with .omega.-trifluoroacetylaminopoly-ethylene glycol to obtain

.omega.-glucopyranosyl tetrabenzyl-.omega.'-trifluoroacetylaminopolyethylene glycol. This may then be hydrolyzed in a sodium carbonate or potassium carbonate solution and then hydrogenated to obtain .omega.-glucopyranosyl-.omega.'amino-polyethylene glycol. Aminoglycopyranosyl terminated polyethylene glycol may then react with N-DPGS-succinimide to form the lipid bearing saccharide DPGS-NH-PEG-Glucose. In certain embodiments, the targeting ligands target cancer cells or tumor cells.

Brief Summary Text (357):
As one skilled in the art will recognize, any of the stabilizing materials and/or vesicle compositions may be lyophilized for storage, and reconstituted or rehydrated, for example, with an aqueous medium (such as sterile water, phosphate buffered solution, or aqueous saline solution), with the aid of vigorous agitation. Lyophilized preparations generally have the advantage of greater shelf life. To prevent agglutination or fusion of the lipids and/or vesicles as a result of lyophilization, it may be useful to include additives which prevent such fusion or agglutination from occurring. Additives which may be useful include sorbitol, mannitol, sodium chloride, glucose, trehalose, polyvinyl-pyrrolidone and poly(ethylene glycol) (PEG), for example, PEG 400. These and other additives are described in the literature, such as in the U.S. Pharmacopeia, USP XXII, NF XVII, The United States Pharmacopeia, The National Formulary, United States Pharmacopeial Convention Inc., 12601 Twinbrook Parkway, Rockville, Md. 20852, the disclosure of which is hereby incorporated herein by reference in its entirety.

Brief Summary Text (373):
The invention is useful in delivering bioactive agents to a patient's lungs. For pulmonary applications of the prodrugs, dried or lyophilized powdered liposomes may be administered via inhaler. Aqueous suspensions of liposomes or micelles, preferably gas/gaseous precursor filled, may be administered via nebulization. Gas filled liposomes of the present invention are lighter than, for example, conventional liquid filled liposomes which generally deposit in the central proximal airway rather than reaching the periphery of the lungs. It is therefore believed that the gas filled liposomes of the present invention may improve delivery of a bioactive agent to the periphery of the lungs, including the terminal airways and the alveoli. For application to the lungs, the gas filled liposomes may be applied through nebulization.